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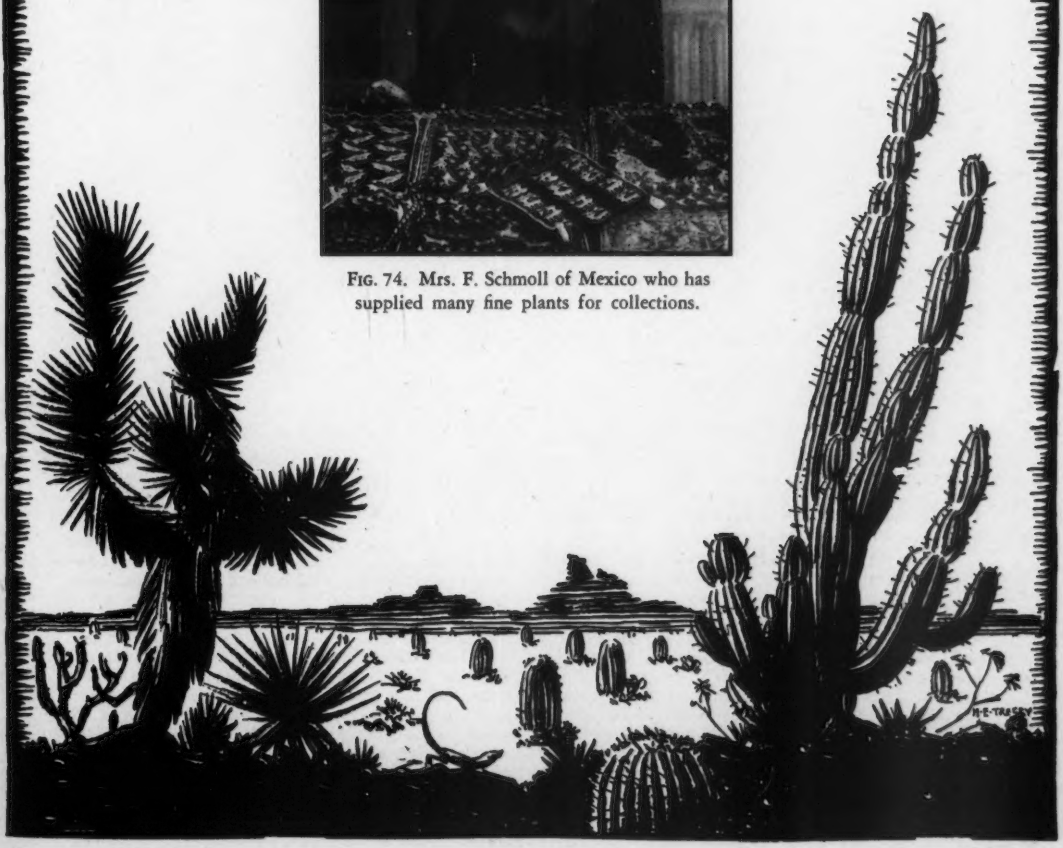
CACTUS AND SUCCULENT JOURNAL

Of the Cactus And Succulent Society Of America

Vol. XVII AUGUST, 1945 No. 8

FIG. 74. Mrs. F. Schmoll of Mexico who has supplied many fine plants for collections.



CACTUS AND SUCCULENT JOURNAL

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AFFILIATE NOTES

Please mail your Affiliate Notes to Chas. A. Place, 5048 Hook Tree Road, Rt. 1, Box 388T, La Canada, California.

I notice that in the past few numbers of the JOURNAL, I have been exceeding my allotted space. I know you will pardon me if, in the interest of the conservation of paper, I rearrange, boil down or otherwise mutilate your various contributions.

If I do not succeed in getting over the exact thought that was intended in your communication, please charge it to my lack of skill and not to my beastly disposition.

Mrs. Margaret Radden (Pres.) writes:

"The Beverly Hills Cactus Club of Chicago, met June 5, at the home of Mrs. Chas. Schultz, subject, *Anhalonium - Lophophora,* having *A. lewinii, A. zieglerii, A. zeiglerii* v. *mammillaris,* and *A. zieglerii* v. *diagonalis.* These are four lovely plants and took three species along for our lessons and door prize for each one, Haworthias. Received the grafting article and it is very interesting, especially the drawings of grafts. There will be no meetings during July and August. Thank you for wishing us luck in our Beverly Hills Club."

Your Club, like your plants, should show good growth. You have good soil and plenty of "plant food."

G. W. van der Bundt (Cor.) writes:

"The Cactus and Other Succulent League of Oakland, held their July meeting at the home of our Vice-President, John Schrender, and was presided over by our President Al Tresler. I was able to attend the July 1, meeting as the roundtrip is 100 miles I have been unable to attend many meeting. John and Ruth Schrender gave our members a lovely time, there were 27 members present for the meeting which was taken up by admiring the nice plant collection and visiting. Our next meeting will be at the home of W. Andrews, I hope to attend meetings from now on."

We are all hoping the transportation problem will soon adjust itself.

Dorinda Bright (Pub. Chr.) writes:

"The Southern California Cactus Exchange held another outstanding meeting June 17th, and the program and the general interest that seems so alive today brought out a capacity crowd. The program was provided by the Destruxol Corp., the speaker, Mr. Thompson, who talked on the work of insects which prey on plant life, telling their growth, habits and means of combating them. He illustrated his talk with 3 reels of motion pictures with sound effects showing the insects actually at work on flowers and plants. His program also covered such branches as fungus growth. This was a very educational program and both instructed us in profitable ways of combating plant diseases and entertained us, because the insect world is a dark secret to most of us. The Exchange takes in new members every meeting and it seems that interest in cactus and other succulents is at high ebb. We certainly made a wise decision when we decided to hold a meeting every month and no longer blame the war for neglecting our favorite hobby, the study and growing of cactus."

We've all been bitten by the cactus bug at some time or other.

Ethel Rush (Cor.) writes:

"The Los Angeles Cactus and Succulent Society, meeting was held at the home of Mrs. Moore, Sunday, July 1st. A good number of members turned out and a lively meeting ensued. Because Mr. Marshall was unable to be present the study lesson was postponed until he could be present to conduct it. A very lively discussion of the genus *Yucca* was held and an article from Volume XV of the JOURNAL about *Yucca Whipplei* and the Pronuba Moth was read and discussed. Also the "Yucceae" by Trelease and Yuccas by McKelvy were also read and discussed. Small plants of *Yucca Whipplei* were on hand for members who wished them. There were also cuttings of Epiphyllums which were distributed to those who wanted them. One of our members brought in a beautiful plant of Parodia scopaoides Bkbg., which was in full flower and very attractive with its bright yellow-orange flowers."

Yucca Whipplei is my favorite xerophyte, out here I am entirely surrounded by them.

Mrs. Elinor Blandford (Lib.Hist.) writes, in the Cactus Digest:

"The June meeting of the Henry Shaw Cactus Society was just literally something to 'write home about!' Miss Clara Heising gave a talk on Opuntias and it was *something.* She certainly made a most comprehensive study of her subject and had the most interesting material. Not only on the strictly botanical side, but she digressed in the liveliest manner on all sorts of information. Such interesting items as one would not come across in a lifetime. She, of course, went into the structure and habits, etc., of the various types and then told how the plants were used and what the fruits were good for and how prepared. It seems the Indians use them a lot and I don't believe any two tribes use them the same and she has a fund of information about this."

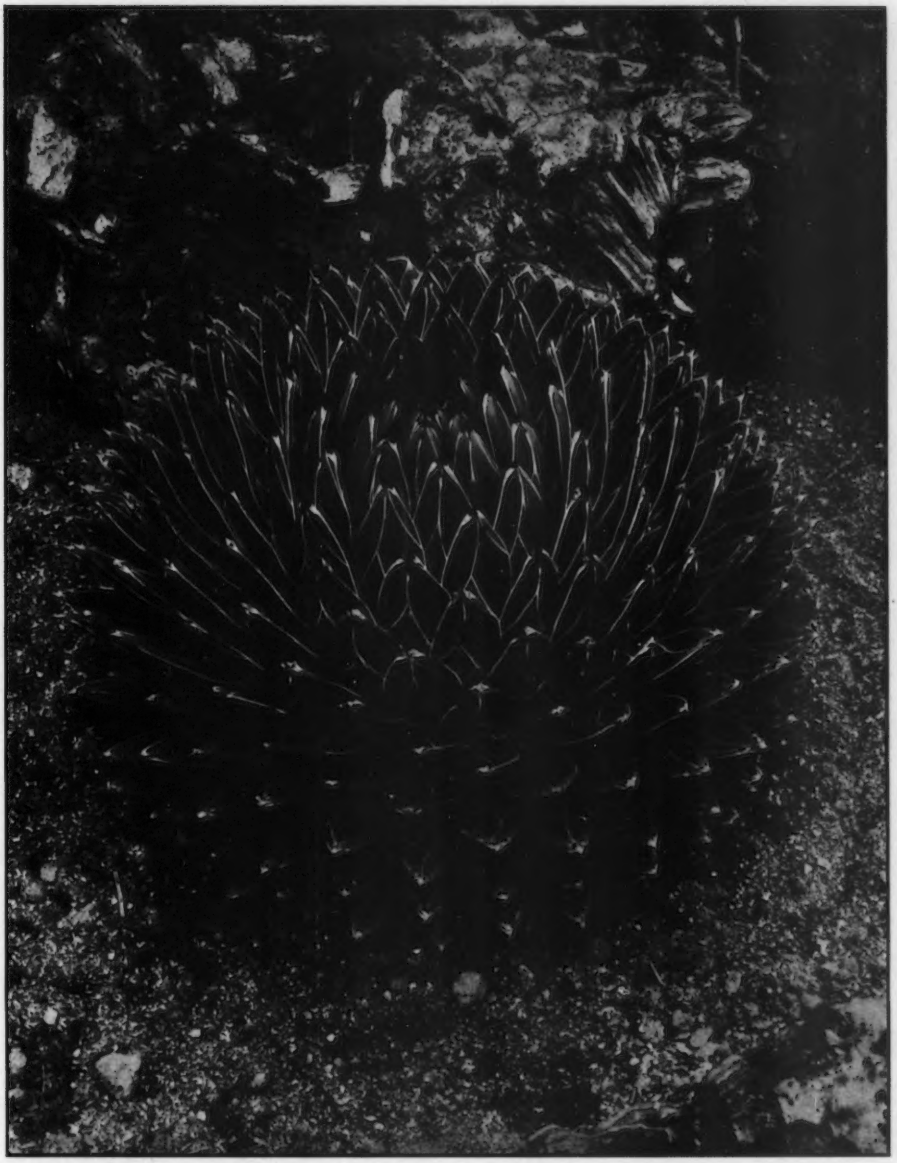

FIG. 74. *Agave Victoriae-Reginae* T. Moore.

Two Well Known Agaves

By J. R. BROWN

Two of the most highly prized Agaves in collections of succulent plants are *Agave Victoriae-Reginae* T. Moore and *Agave Ferdinandi-Regis* Berger, the symmetrical form of the plants and their distinctive leaf pattern making them conspicuous in any group of Agaves or other succulent plants.

The plants seem fairly closely related, indeed,

FIG. 75. *Agave Ferdinandi-Regis* Berger.

Berger had previously given the name *Agave Victoriae-Reginae* var. *laxior* to the plant which he later elevated to a distinct species in his monograph *Die Agaven*, 1915, and to which he gave the name *Agave Ferdinandi-Regis* after King Ferdinand of Bulgaria. *Agave Victoriae-Reginae* was named in honor of Queen Victoria of England by T. Moore in The Gardeners' Chronicle in 1875, and was found in the vicinity of Monterrey, in Northern Mexico.

The exact time of the introduction of *Agave Ferdinandi-Regis* to this country is somewhat obscure and it is commonly known by the names *Agave Nickelsi*, *A. Nickelsii*, or *A. Nichelsiae*,

FIG. 76. Leaf tips of *Agave Victoriae-Reginae* approx. nat. size.

FIG. 77. Leaf tips of *Agave Ferdinandi-Regis* approx. nat. size.

due to the fact that Anna B. Nickels, Arcadia Garden, Laredo, Texas, who probably collected the plants in Mexico, was the first to offer it in her catalog under the name *Agave Nickelsii* and states "This Agave is similar in appearance to *A. Victoriae-Reginae,* except that it is of much more robust growth, the leaves being thicker and the white markings on same being broader and more distinct." The catalog seen by the writer has no date of publication.

The name *Agave Nickelsi* was known and used in Europe at least as early as 1895 but was voided by Berger in his monograph, due to the lack of proper botanical description and thus the name *A. Nickelsi* is relegated to garden status. No definite locality seems to be known (at least by the writer) for *A. Ferdinandi-Regis,* although it may have been collected in Mexico many times.

Considerable confusion exists, in the minds of many, regarding the identity of one from the other and it was with this in view that the photographs accompanying this article were taken. Two mature plants of exactly the same diameter are shown, each measuring 52 cm. (approx. 20½ inches). The plant of *Agave Victoriae-Reginae* is more globose and compact, the leaves more numerous and shorter, and thinner, the white markings are narrower, and the end-spine less prominent when compared with the plant of *Agave Ferdinandi-Regis.*

Some characters of the end-spine of each species have been tabulated and are given below, and 2 photographs showing the centre of a plant of each Agave (approx. nat. size), to show the end-spines more distinctly, were taken and are shown here.

A. Victoriae-Reginae	*A. Ferdinandi-Regis*
somewhat subulate	3 angled
ungrooved	grooved
slender, often flexuous	stout
5-10 mm. long, seldom exceeding 10 mm.	up to 2.5 cm. long
brownish-black	brilliant ebony black
not decurrent on keel or margins	in older plants decurrent on leaf margins to 5 cm.
often with 2 to 3 or more small teeth at base of end-spine, erect or spreading, or deflexed and blunt or pointed.	usually with distinct teeth from angles at base of end-spine, usually erect and sharply pointed.

The face of the leaf of *A. Victoriae-Reginae* is usually swollen just below the apex, and is never furrowed.

When planted in the open seldom, if ever, does *A. Victoriae-Reginae* produce offsets, while *A. Ferdinandi-Regis* produces them abundantly. It is stated that when grown in pots the first named also produces offsets freely, the writer has not observed this, but it is well known that some Agaves, which may only very occasionally give rise to an offset when planted in the ground, will offset freely when grown under pot culture.

Numerous fine specimens of the above Agaves may be seen in the magnificent collection of the Huntington Botanical Garden in San Marino and many fine photographs and notes regarding them will be found in past issues of the "Journal," written by the Curator, Mr. Wm. Hertrich.[1]

CACTOPHILES

The future of the JOURNAL depends upon you. Where are the cactus contributors? Unless you send in your contributions, as in the old days, our JOURNAL will become an "Other Succulent" magazine. Send in that article or photos, today, for a properly balanced magazine.

[1]Cact. & Succ. Journ. X (1938) 83, XIV (1942) 67.

Epiphyllums in the Livingroom in New England

By EDWARD C. ROOSEN-RUNGE, M.D.

My father kept Epiphyllums on the windowsill in our living room, on one of the wide sills which are customary in Germany. It was one of the family pleasures to watch the growth of the big buds until they opened when everyone would be called in to admire the gorgeous silky flowers. On trips into the country we would also see the orchid cacti in the windows of the peasant houses where they bloomed even more profusely than in our centrally heated living room.

By the time I founded my own family in the United States it had become a matter of course with me that Epiphyllums would live with us and would do as well as *Sanseveria* or *Aspidistra.* And they do well, in Massachusetts as they did in Germany. Although I have since learned to make the plants bloom more profusely by more refined methods, even quite ordinary care will make them produce a few flowers every year, and even one single hybrid flower of 10 in. diameter, flaming color and fine fragrance is an event not soon to be forgotten in our city homes.

My collection was started about 7 years ago with some seeds of one of my father's plants. These seedlings are now strong and bushy specimens ready to bloom. Shortly after I began buying cuts for 25 to 50 cents each and year after year these grew and flowered better. I bought only a very few plants each spring, and yet with the older ones growing to perfection, seedlings maturing and my culturing methods improving, my collection is now one of the great pleasures of our family life. The avalanche-like growth of a hobby is always somewhat awe inspiring. One sees one-self crowded out of the house by the multiplying and growing plants. Yet a balance is usually struck and a way found to fit in ever more plants as long as the pleasure derived from them is growing. Now even my 3-year-old son will do his first morning walk to see whether new buds have opened on a blooming plant and he will call me full of excitement to see the miracle in the morning sun.

We have always lived in apartments in New England, always in rooms which were centrally heated and we never had a greenhouse, and yet, I found, that results can be satisfactory for an amateur. Of course, we cannot compete with the possessors of greenhouses or a warm climate and I am not making a plea to attempt that competition, but with a genuine liking for the plants, some patience and a few rules in mind, the specimens will grow and flower in the living room. I have always rather enjoyed the suspense of waiting for results with plants for a year or two or even more. Time with plants is quite different from what it is with animals or us human beings. They do not take part in the quick oscillations of our daily lives, they change over years and not over hours and days, and this is rather a comfort. Patience is necessary but it should not be a burden in giving them whatever care is required from day to day.

The rules to keep in mind are few. Epiphyllums like air and light in summer and in winter, in our climate and anywhere else. The more air and light we can give them and at the same time supply them with an adequate amount of moisture the more growth and flowers are produced, although *some* growth and *some* flowers can usually be obtained with a relative minimum of both. Often, a place in a southern window open whenever possible during the summer and as far away from the radiator as possible in winter is sufficient. Better still is a place in the garden during the summer. In most books on the subject, I find that Epiphyllums should be protected from too much sun. In the cities of New England the sun does not appear to become strong enough to do harm to the plants. On the other hand, the maximum amount of sunlight available is not necessary to stimulate good growth and bloom, and in the garden a position in half shade is as good as one in the full sun.

Early in the spring I begin to accustom the cacti to outdoor life by opening windows or putting them out on a protected porch in good weather. In the latter part of May they are set out into the garden, best into a flower bed and I sink the pots into the soil up to about one inch from the rim of the pots. This keeps the temperature of the roots much more constant and presents quick drying of the soil. It has only one distadvantage—ants. These insects do not do any harm to the plants directly but they often introduce mealy root bugs or aphids. In one of our gardens this never occurred; in our present place it is a nuisance. However, the plants are little harmed except by very severe infestations and I found frequent soakings with nicotine solutions an efficient check to the bugs. In my experience, the advantage of sinking the pots

into the soil easily outweighs the disadvantages. Little other care is necessary during the summer except for watering during dry spells.

Epiphyllums are not desert but forest plants and respond well to plenty of water if the drainage is good. They also like fine sprays given in the evening. When a plant begins to bloom, it is usually taken inside for the time of its flowering so that it can be admired more closely. I have often been amazed at the ability of these flowers to withstand this kind of change; they hardly mind it more than Amaryllis do. Of course, unnecessary handling is to be avoided and we always take care not to change the direction from which the light comes, because the flowers will grow toward the light and actually become distorted in shape if they are turned away from it.

In fall the plants are brought in before the radiators are going. This prevents the rapid change from fresh air to the dry and warm atmosphere of the rooms. Actually the plants can stand a good deal of rough autumn weather. Once, a specimen of "Dr. Houghton" was forgotten in its place in the flowerbed and only discovered in late December when frosts had apparently killed it. On close examination, the roots were found to be quite healthy and an attempt was made to nurse it back to life. During the next year the plant developed one small shoot but another transplanting brought about complete recovery and the cactus is now again a fine specimen.

The winter climate of our living rooms is not what plants like, and if we cannot offer our cacti anything better, it is only a matter of making them survive the winter with the least possible damage. The best means to keep the atmosphere around the plants somewhat moist is to crowd them. Fifteen to twenty good specimens of orchid cacti on a small table are such a jungle of green that they generate a miniature climate for themselves. The table is put far away from a radiator and in a light place. Under such conditions I do not spray at all but water freely all winter long. It is impossible to give the plants a real rest in the heated rooms. If one waters less the result is usually a shrivelling of the shoots and a reduction of the root system. One should, however, keep in mind that the plants must make as little growth during the winter as possible. Therefore, fertilizer is never given until spring and excess watering is avoided. If shoots are produced they are usually thin and weak and are removed in February or March. While this method of wintering-over is not ideal it produces some results under unfavorable circumstances.

If there is an unheated and light room in the house, that is the place for the Epiphyllums to hibernate. The resting plants do not mind cold as long as it does not freeze. The plants are left in the garden until frost can be expected, then taken into the unheated room. Here they are gradually watered less as the average temperature of the room goes down. In January it may be only 40° F. or little more and during that time big plants need only be watered every two weeks; smaller ones a little more often. Treated in this way the cacti make hardly any top growth but do not shrivel, either. Some of them will probably show their first buds in February or March. Quite often the plants develop long air roots, showing their liking for this kind of rest. Incidentally, pieces with such roots make excellent cuttings which take hold almost immediately.

Many well known hybrids have done well with me under the conditions described: Deutsche Kaiserin, Gloria, Rosetta, Vive Rouge, and Epiphyllum Cooperi all bloomed well. Of the species, *Epiphyllum strictum* has been particularly rewarding. My own seedlings have made better growth than any plants I bought, probably because they were better adapted to our climate but they have not yet bloomed well. As to the soil in which I plant my Epiphyllums, I am a heretic. I do believe that a porous soil with much humus and good drainage is what they like, but the amount and size of the flowers which they have given me, has been little different in ordinary garden soil or in soil extremely rich in fine or coarse humus. We must realize that we keep our plants under conditions which are extremely different from their native habitats. The amount of light, the average temperature, the changes in temperature, the moisture of soil and air, all are entirely different from that found in the forests of Central America. It is worthwhile to experiment a little to find what growing medium might be the best under such changed circumstances. And that leaves us with the note on which all directions to plant lovers have to end—for best results, experiment.

In summary, I would like to emphasize, that Epiphyllums are good house plants and produce blooms even under the adverse conditions of the New England climate and centrally heated rooms. They can be kept in the living room all the year around and be quite satisfactory plants. They give more pleasure if it is possible to winter them in an unheated and light room and to give them some fresh air and outdoor sun in summer. A collection of about 15 mature plants can furnish the living room with delightful show pieces for many weeks and even months throughout the year.

"CACTACEAE"

By W. TAYLOR MARSHALL *and* THOR M. BOCK

EDITOR'S NOTE: When the "Cactaceae" by Marshall and Bock was published in 1941, we stated that we would publish from time to time the new species as they appeared. This makes a volume invaluable because it never becomes out dated. Since most of the readers of the "Cactaceae" are members of the Cactus and Succulent Society of America, we can render this service by printing this first Supplement in the Cactus and Succulent Journal of America.

SUPPLEMENT NO. 1

The following species have been published since the publication of "Cactaceae" or were not available to us for inclusion in that work.

Tribe II. OPUNTIEAE

Genus 5. Tacinga

Tacinga atropurpurea Werd., Not. Bot. Gard. & Mus. Berlin, XII 12:223. 1934.

Branching, to 10 ft. high, at first erect, later leaning or trailing; joints cylindrical, 1.5 cm. in diam., grayish; areoles approximate, bearing brown wool and gray glochids; flowers terminal, 7 cm. long, dark purple; ovary 5 cm. long, 1 cm. in diam.; stamens erect, filaments white; anthers purple; style pale green; stigmas green, short.

Type locality: Between Boa Nova and Conquista at 600 meters, Bahia, Brazil.

Genus 7. Opuntia

Sub-genus 1. Cylindropuntia

Series 3. Thurberianae

Opuntia hualpaensis Hester, Cact. & Succ. Journ., XV: 191. 1943.

Arborescent to 5 feet high; ultimate joints clavate, strongly tuberculate, 5-10 cm. long, 1.5-2 cm. in diameter; tubercles overlapping, in spiraled rows, longer than broad; areoles oblong bearing yellowish felt when young; glochids few; spines 5-10, of which 2 to 4 are gray to brownish, 1-3 cm. long and 3-6, gray, acicular, 5-8 mm. long; flowers open one day, greenish-yellow, 4 cm. wide and 2 cm. long, terminal; ovary clavate, 2.5 to 3 cm. long, tuberculate; areoles short felted and bearing many glochids.

Type locality: Near Peach Springs, Arizona.

Series 4. Echinocarpae

Opuntia abyssi, Hester, Cact. & Succ. Journ., XV:193. 1943.

Low, spreading bush, to 3.5 feet high with a short, woody trunk; branches terete, tuberculate, divergent from trunk, 11 to 15 cm. long; tubercles overlapping, in 7 spiraled rows, longer than broad; areoles oblong bearing short gray wool in youth only; glochids absent from new growth; spines 10 to 14, white to gray, acicular, spreading, unequal, the longest 5 to 20 mm. long; flowers rotate, terminal, yellow-green, 3.5 to 5 cm. in diameter, open several days; fruit clavate, yellow-green, tuberculate, glabrate, 2.5 cm. long.

Type locality: Peach Springs Canyon, Arizona.

Opuntia rosarica Lindsay, Cact. & Succ. Journ., XIV: 56. 1942.

Low, spreading plant up to 3 feet high; joints 4 to 8 inches long, 1 to 2 inches in diameter, tuberculate, the tubercles long and narrow, joined longitudinally to form ribs, the ribs 10 to 12 in number; areoles triangular, bearing short felt and numerous yellow glochids; spines 4 to 7 accompanied by several short bristles, the single central spine porrect, sheathed, up to 3.5 cm. long; flowers clear yellow with reddish center, fruit dry.

Type locality: San Telmo, Baja California, Mexico.

Opuntia multigeniculata Clokey, Madrono, VII No. 3:69. 1943.

Much branched, bushy Opuntia to 18 inches or less in height, stems cylindrical, low tuberculate, up to 2 cm. thick; tubercles 4-6 mm long, 2-3 mm. wide; spines about 12, acicular, white sheathed; central spines 2-4, 15-18 mm. long; flowers from apex of branches, 2.5 cm. long and broad.

Series 9. Claverioides

Opuntia Ruiz-Lealii Castellanos, Lilloa, IX:211. 1943.

This plant as described, is identical with *O. claverioides* Pfeiff. but it has a large tuberous root. The root of *O. claverioides* is not mentioned in any description that I have seen and all material available in the United States is grafted and I have not seen a rooted plant. If *O. claverioides* does not have a tuberous root then this species may be valid but otherwise the name becomes a synonym of *O. claverioides.*

Series 6. Imbricatae

Opuntia brevispina Gates, Cact. & Succ. Journ., X:98. 1938.

A cylindropuntia with pronounced tubercles which are longer than broad, the 5 radial spines born from the areoles at the top of the tubercles, short; central spine one, also short. The areoles bear dense gray wool but no glochids. Flowers from end of joint, reddish-purple. Fruit sphaerical with sappy pulp.

Type locality: Isla Ballena, Gulf of Lower California.

Sub-genus II. **Tephrocactus**

Series 1. **Weberiana**

Opuntia setiger (Backeberg) Marshall, comb. nov.

Tephrocactus setiger Backeberg, Kaktus A.B.C. 410. 1935.

Green, branches cone-shaped, 2.5 cm. in diameter; tubercles in quadrangular formation; areoles in grooves on the apex of the tubercles at first bearing short wool and glochids; spines acicular, 4-6, flexible, to 3.5 cm. long; flower unknown.

Type locality: Circa Cordoba, Argentina.

Sub-genus III. **Platyopuntia**

Series 11. **Phaeacanthae**

Opuntia phaeacantha Eng. var. *Piercei* Fosberg., Bull. So. Cal. Acad. Sc. XXXIII:2:102. 1934.

Joints longer than in the species (to 20 cm.), light green to purplish, spines usually one, dark red-brown to whitish; flower pale yellow, 6 cm. wide; fruit slender, red, up to 5 cm. long.

Type locality: Gold Mountain, San Bernardino County, California.

Opuntia charlestonensis Clokey, Madroño, VII:71. 1943.

Spreading, branches ascending or prostrate, 10-18 cm. long, 10-12 cm. wide, yellowish-green to purplish; spines 4 to 6, acicular, white with light brown base; flowers clear yellow later salmon, 4 cm. wide; fruit oval, 3.5 cm. long.

Type locality: Griffith's mine, Charleston Mountain, Nevada.

This appears to be *Opuntia mojavensis.*

Opuntia galapagensis Hensl.

O. saxicola Howell, *O. megasperma* Howell, *O. megasperma* var. *orientalis* Howell, *O. zacana* Howell, *O. echios* Howell, and *O. echios* var. *gigantea* Howell, all in Proc. Calif. Acad. Sc., XXI No. 5, pgs. 45-51, 1933, are all variations of the variable *Opuntia galapagensis* and should be referred to the synonymy of that species.

Position doubtful

Opuntia catingicola Werd. Nat. Bot. Gard. & Mus., Berlin, XII:122, 223. 1934.

An erect platyopuntia to 5 ft. high; joints oblong, 6 inches long by 4 inches wide, gray-green; areoles bearing short, yellowish wool and deciduous yellow glochids; spines 1 to 5, acicular, unequal, 1-4 cm. long, dirty yellow, robust; flowers unknown; fruit globose, umbilicate, yellow.

Type locality: Between Mondo Novo and Ventura at 600 meters, Bahia, Brazil.

Tribe III. CEREEAE

Sub-tribe 1. **Cereanae**

Genus 1. **Cereus**

Cereus peruvianus (L.) Miller var. *profferans* Werd., Var. *persicunus* Werd., Var. *reclinatus* Werd, *Cereus jugatiflorus* Werd., *Cereus torulosus* Werd., *Cereus Hertrichianus* Werd., and *Cereus grandicostatus* Werd., are described in Not. Bot. Gard. & Mus., Berlin, XII:14. 1935. The separation is on the vegetative variations of several species growing in the Huntington Botanical Garden at San Marino, California. *Cereus horridus* Otto var. *alatosquamatus* Werd. was also published and the species which Britton and Rose referred to *Cereus hexagonus* (L.) Miller was reinstated.

Cereus milesimus Rost described in Desert Plant Life, IV:42. 1921, is from a plant in Mr. Rost's garden in Alhambra, California, and is also resurrected in the same article.

Genus 6. **Browningia**

In Blatter für Kakteenforschung, 7:1937, Backeberg erected a new genus, *Gymnanthocereus,* which he diagnosed as follows: Plantae valde ramosae; floribus infundibuliformibus, tubo squamis longis, nudis; fructus squamosus, nudus. The type species was *Cactus chlorocarpus* H.B.K. This diagnosis differs in no respect from *Browningia* Br. & R. and the genus *Gymnanthocereus* should be listed as a synonym of that genus.

Browningia chlorocarpus (H.B.K.) Marshall, *Cactus chlorocarpus* Humboldt, Bonpland and Knuth, *Cereus chlorocarpus* D.C. is now obtainable as a seedling and is a fast and strong growing plant.

Genus 14. **Leocereus**

Leocereus paulensis Speg., Anat. Soc. Cien. Arg. 99: 116. 1925.

Stems usually simple, erect, slender, about 1 meter high, dull green; ribs 13-15; areoles bearing dusty gray wool; radial spines 11, yellowish, bristle-like; central spine 1, ascending; flowers from near top of stem, 6-7 cm. long, tube and ovary scaly, bearing long stiff, gray hairs, magenta colored.

Type locality: Between Santos and Sao Paulo, Brazil.

Genus 26. **Heliocereus**

Heliocereus heterodoxus Standley & Steyerm. Field Mus. of Nat. Hist., 23. 1944.

Epiphytic, the branches flat or three-winged, somewhat crenate; areoles small, densely woolly; spines 4 to 8, to 8 mm. long; flowers 8 to 11 cm. long; bracts on tube oblong, obtuse with hair-like spines in axils.

Type locality: Along Rio Vega near San Rafael, Dept. San Marcus, Guatemala. Pendent from trees in wet forest at 1,800-2,100 meters.

It is extremely doubtful that this epiphytic species should be assigned to the terrestrial genus *Heliocereus.*

The genus *Mediocactus* contains epiphytic species with nocturnal flowers and the bracts of the flower tubes bear spines as do the bracts of *Cereus heterodoxus.* No mention is made of flower color in the above description nor is the flowering time stated but if the flowers are nocturnal then it should be assigned to *Mediocactus.*

Sub-tribe II. Hylocereanae

Genus 5, Deamia

Deamia diabolica Clover, Bull. Torr. Cl., 65:570. 1938.

Stems robust, jointed, 3-4 angled; ribs thin, 3-4 cm. high, subcrenate; areoles 1.5-2 cm. (?)* across on mature stems; spines acicular, various, 5 to 52 mm. long, brown becoming grayish, bulbose at base, one spine often much longer than the others; flower 22-24 cm. long, white; tube bearing small scales, the axils filled with tawny wool and 3 brown to yellowish, curling hairs; ovary ovate, densely spiny, the spines golden-brown.

Type locality: Corozal District, British Honduras.

Sub-tribe III. Echinocereanae

Genus 1. Echinocereus

Echinocereus Gentryi Clover., Bull. Torr. Bot. Cl., 65:565. 1938.

Cespitose, stems procumbent to ascending, few jointed, 6-15 cm. high, 2.5 cm. in diameter; ribs 5, somewhat spiralled; areoles minute, round, white woolly, approximate; radial spines 8-12, 1-2 mm. long, brownish; central spine 1 or more, similar to the radials; flowers funnelform, 6-8 cm. long, 5-6 cm. wide, the perianths in 5 whorls, pink, opening about 3 p. m. and remaining fully opened all night.

Type locality: Saucito, Sonora, Mexico.

This interesting species has been widely distributed from the collection of Mr. Gentry and later from the collection of Lindsay and Craig but without name or number.

Echinocereus Salm-Dyckianus Scheer var. *noctiflorus* Heid., Leaflets of Western Bot., IV:2:27. 1944.

Cespitose, stems to 24 inches long, 1¾ inches in diameter; procument or pendant; ribs 7-10; areoles small, round; spines yellow or gray-white, acicular; radial spines 8; central spine 1, porrect, to ½ in. long; flowers purplish-pink to scarlet, opening at night; ovary and tube bearing scales with weak spines and long, soft hairs in their axils; fruit dull-green, pear-shaped.

Type locality: Near Cerochui, Chihuahua, Mexico, collected by Dr. R. T. Craig.

Echinocereus Steereae Clover, Bull. Torr. Bot. Cl., 65:565. 1938.

This is one of the intermediate forms between *E. dasyacanthus* Eng. and *E. rigidissimus* Eng. It has the typical form and spination of the first and large, rose-purple flowers of the latter species. As suggested on page 119 I refer it to *E. dasyacanthus* Eng. as a variety.

Type locality: Chisos Mountains, Western Texas.

Genus 3. Rebutia

Rebutia costata Werd., Not. Bot. Gard & Mus. Berlin, XII:112:225. 1934.

Cespitose, heads bright green, globose, 2 cm. in diameter; ribs 8-9, continuous but scored by transverse sulcations into indefinite tubercles; areoles oblong, bearing white wool; spines at first porrect, later horizontally spreading, 11-12, all radial, 7 mm. long; flowers 3-3.5 cm. long from base of stems, orange; ovary globose.

Type locality: Bolivian—Argentinian border.

Sub-tribe Echinocactanae

Genus 11A. Navajoa

Navajoa Croizat, Cact. & Succ. Journ., XV:88. 1943.

Small, simple, tuberculate plants; spines weak, sometimes puberulus. Flowers from the apex of the tubercles, small, campanulate; outer perianth segments broadly oblong, lacerated; inner perianth segments sub-acute, hypanthium short or none.

Navajoa Peeblesiana Croizat, Cact. & Succ. Journ., XV:89. 1943.

Simple, 3 cm. tall; tubercles prominent, spreading to erect, about 3 mm. high; flowers 16-17 mm. long; outer perianths pale brown; inner perianths white with a pinkish center stripe.

Type locality: Circa Holbrook, Navajo Co., Arizona.

Genus 21. Ferocactus

Ferocactus alamosanus Br. & R. var. *platygonus* Lindsay, Cact. & Succ. Journ., XIV:139. 1942.

Like the species but differing in its more obtuse and fewer ribs (13) and in the much larger size of the plant which attains a height of 1 meter.

Genus 34. Sclerocactus

Sclerocactus havasupaiensis Clover, Amer. Journ. of Bot., XXIX:2:171. 1942.

Simple, columnar, 42 cm. high, 8-11 cm. diameter; ribs 13-18, often spiralled, prominent; areoles subcircular, approximate; glands in groove above young areoles 1 to 6, yellowish to red; radial spines 6-13, usually 10, white with dark tips, terete or flattened, acicular, 10-20 mm. long; central spines various, 4-9, often with upper ones ascending, straight, flattened and translucent, 4-4.5 cm. long, lower centrals curved or hooked, flexuous, angled, the longest 6-7 cm. long, variagated red, white to almost black; flowers campanulate, 3-5.5 cm. long, 3 cm. across; inner perianth segments yellowish-green at base fading to almost white at tip; flowers faintly scented and remain open for several days; fruit 1 cm. long, oblong, purplish but later drying.

Sclerocactus havasupaiensis var. *roseus* Clover, Amer. Journ. Bot., XXIX:2. 1942.

Variety *roseus* bears flowers of a pale, rose pink.

Type locality: Top of Supai Formation, Havasupai Canyon, Arizona.

Sub-tribe V. Cactanae

Genus 2. Melocactus

Melocactus horridus Werd., Not. Bot. Gard. & Mus., Berlin. XII:112:227. 1934.

*W. T. M.'s query.

Sub-pyramidal to 6 inches high including cephalium, gray-green; ribs about 12, subcrenate; areoles orbicular; radial spines 8-10, horizontally spreading, rigid, subulate, pungent, rusty-red, base enlarged, 1-5 cm. long; central spines 3-4, porrect, robust, 2-3 cm. long; cephalium 2-3 cm. high, 5-6 cm. in diameter composed of dense, white wool and red, acicular spines. Flowers and fruit unknown.

Type locality: Villa Bella, Pernambuco, Brazil.

Melocactus pruinosus Werd., Not. Bot. Gard. & Mus., Berlin, XII:112:228. 1934.

Globose to sub-ovoid, 10-12 cm. high, 11-14 cm. in diameter, pruinose; ribs 9-10, 2.5-3 cm. high; radial spines 5-6, sometimes 2-3 smaller ones added, subulate, radiating, reddish-brown, 3 cm. long, upper ones shorter; central spine 1, erect, 2 cm. long; cephalium saucer-shaped, 7 cm. in diameter; flowers and fruit unknown.

Type locality: Sierra de Espinnaco, Bahia, Brazil.

Melocactus salvadorensis Werd. Not. Bot. Gard. & Mus. Berlin, XII:112:228. 1934.

Hemisphaeric, bright-green, 12 cm. diameter; ribs 10-12, subacute; areoles orbiculate, at first densely white woolly; radial spines 8-9, horizontally spreading, subulate, reddish; central spine 1 or wanting, 2-2.5 cm. long; cephalium 1-2 cm. high, 5-6 cm. diameter, composed of white wool and red, acicular spines; flowers and fruit unknown.

Type locality: San Salvador, Bahia Brazil.

Sub-tribe VI. Coryphanthanae

Genus 7. Coryphantha

Coryphantha Nellieae Croizat, Torreya, 34:15. 1934.

Plant small, simple or sparcely cespitose, cylindrical, 4.5 cm. long; ribs 8 to 14, tuberculate; tubercles grooved, 2 mm. long; areoles scarcely woolly; spines 13 to 18, all radial, spreading, white with yellowish base or occasionally pinkish; flowers small, purplish.

Type locality: In limestone at 4000 feet, about 4 miles south of Marathon, Texas.

Coryphantha Pirtlei Werd., Not. Bot. Gard. & Mus., Berlin, XII:112:226. 1934.

Simple or cespitose, globose to ovoid, at first green later silvery, 7 cm. high, apex depressed and bearing yellow wool; tubercles conic, the upper erect, lower ones horizontal, base compressed or rhomboid, apex subterete; areoles elliptical at first with white wool, later naked; radial spines 8-11, 8 mm. long; central spines 1-3, porrect, yellow with black tips, base swollen; flower 3.5 cm. long, funnelform, rose-colored; fruit olive-green.

Type locality: Starr County, Texas.

Coryphantha ramillosa Cutak, Cact. & Succ. Journ., XIV:163. 1942.

Simple or clustered, globose, gray-green; tubercles large, 2 cm. high and 1.5 to 2.5 cm. broad at base, grooved on upper side from tip to base; areoles circular, at first white woolly; radial spines 14-20, whitish, spreading, somewhat flattened or angled and slightly curved, some bristle-like, 10-35 mm. long; central spines 4, longer and stouter, 25-38 mm. long, at first chocolate-brown, later dirty gray with darker tips; flowers large, pale pink to deep rose-purple, 6.5 cm. long and 5 cm. broad.

Type locality: Head of Reagan Canyon, Brewster County, Texas.

Coryphantha rosea Clokey, Madrono, VII:75. 1943.

The plant described is a typical *Coryphantha chlorantha* which was described by Engelmann in 1878 as having yellow flowers. In 1880 Engelmann described his *Coryphantha desertii* as also having yellow flowers. These two species are identical and should be united under the older name. Flowers range in color from a greenish-yellow through yellow and pink to light magenta and in size from 2 to 4.5 cm. All variations of color can be found in almost any district in which the plant is plentiful including southern Utah, southern Nevada, and the Mojave Desert.

Type locality for *C. rosea* is given as Charleston Mountain, Nevada.

Genus 16. Mammillaria

Mammillaria Blossfeldiana var. *Shurliana* Gates, Cact. and Succ. Journ. XIII:78. 1941.

This variety was published without a Latin diagnosis which may effect its validity. It is taller than the species, has 3 central spines and the filaments of the flowers are reddish-purple, the seeds are smooth.

Mammillaria Craigii, Lindsay, Cact. & Succ. Journ., XIV:107. 1942.

Plant simple, globose, apex slightly depressed; tubercles pyramidal in youth, becoming rounded in age; axils of tubercles with abundant wool but no bristles; areoles oval, at first with yellowish wool; central spine acicular, porrect, with enlarged base, golden, with brownish tip; radial spines 8, acicular, erect, golden-yellow with brown tip; flowers campanular, at first white woolly; radial spines 14-20, whitish,

Type locality: Barranca del Rio Urinque, circa Choro, Chihuahua, Mexico.

Mammillaria Lindsayi Craig, Cact. & Succ. Journ., XII:182. 1940.

Simple or cespitose; tubercles conical, somewhat four angled; juice milky; axils of tubercles bearing dense white wool; central spines 3 to 4, erect, red to yellow; radial spines 12 to 14; whitish; flowers greenish-yellow; inner perianths obtuse; stigma lobes 4 to 5, greenish-yellow; fruit red.

Type locality: Molinas to Sierra Colorado, 10 to 15 miles northeast of junction of Rio Chinapos and Rio Fuerte, Chihuahua, Mexico.

Mammillaria melispina Werd., Not. Bot. Gard. & Mus., Berlin, XII:112:226. 1934.

This species was listed on page 187 without description which we now give: Simple or cespitose, short

cylindrical, 8 cm. high, 6 cm. diameter, gray green; apex slightly umbilicate and bearing yellow wool; tubercles angled at base; areoles at first white woolly then naked; spines 2 (1-4), porrect, yellow; axils of tubercles tomentose, later naked; flowers 3 cm. long, pale citron-yellow; fruit unknown.

Type locality: Jaumave, Tamaulipas, Mexico.

Mammillaria Woodsii Craig, Cact. & Succ. Journ, XV: 33. 1943.

Simple, globose to clavate; tubercles dull green, angled below with apex nearly rounded, arranged in 13 and 21 spirals, dull grass green; axils with dense white wool and white, hair-like bristles up to 1 inch long; areoles oval, white woolly when young; central spines 2 to 4, the lower ones subulate, 16 mm. long, the upper ones acicular, almost straight, 4-5 mm. long, dull purplish pink with black tip; radial spines 25-30, hair-like, tortuous, white, ascending; flowers 10-12 mm. long; outer perianth segments brownish with pink mid-stripe and pale pink margins, lanceolate, acute; inner perianth segments dark pink with lighter margins, elliptical, obtuse, entire; anthers yellow; filaments pink; style pink; stigma lobes 3, pale brownish-pink; fruit clavate, deep pink; seed brown.

Type locality: Hacienda de Tarajeas, Mexico.

Sub-tribe VII. Epiphyllanae

Genus 7A. Lobeira

Lobeira Alexander, Cact. & Succ. Journ. XVI:177. 1944.

Epiphytic plants, the branches flat, thick, crenate; areoles bearing tufts of tan colored wool; flowers medium sized, diurnal, purplish rose colored; ovary orbicular, bearing minute bracts, these with short wool in their axils; perianth tube funnel-shaped, the same length as the limb, and bearing numerous bracts; perianth segments numerous, broadly linear and acute, recurved-spreading; stamens numerous, the filaments slender and excerted; style stout, longer than the stamens.

Lobeira MacDougallii Alexander, l. c.

Description same as for the genus.

Type locality: Type obtained from a garden in San Cristobal Las Casas, Chiapas, Mexico, said to have come from the Cerro Hueitepec, but it has not as yet been found there.

Sub-tribe VIII. Rhipsalidanae

Genus Pseudorhipsalis

Pseudorhipsalis macrantha Alexander, Cact. & Succ. Journ., XIV:20. 1942.

Plant epiphytic, the stems and branches leaf-like, bright green, terete at base, arching or pendent up to 3.5 feet long and less than 2 inches wide, tapering at the tip and with crenulated margins; areoles on margin of stems, minutely gray felted; flowers 3 cm. wide, the few perianths (9 to 13) flatly spreading, linear, 35 mm. long, 5 mm. wide, the 3 outer ones light brown-orange, rosy-purple at the base, the others bright, lemon-yellow; stamens numerous.

Type locality: Niltepec, Oaxaca, Mexico, altitude 2500 feet in rain forests.

SUPPLEMENT TO CACTACEAE
MARSHALL AND BOCK

Please make the following corrections on the pages noted. We express our sincere thanks to those of our readers who brought the errors to our attentin.

Page 12. Substitute *sub-tribe* for *sub-genus* before each of the 8 terminations of the key. Fig. 4 should be *Echinocactus horizonthalonius.*

Page 26. Illustrated in Plate II, change Figures 3, 4 and 5 to 4, *5 and 6.* List *Rebutia minuscula* as Fig. 3.

Page 28. Fig. 4, *Obergonia Denegrii* should be *Obregonia Denegri.*

Page 48. Fig. 14, Porferia Schwartzii should be *Porfiria Schwartzii.*

Page 68. Under Genus 1. Cereus Miller. 1768 add *Piptanthocereus Riccobono.* 1909. as a synonym.

Page 86. Under Culture, E. Diguetii should be *N. Diguetii.*

Page 91. Under Recent New Species, paragraph 2. A. guatemalensis is actually a robust form of A. horridus, should read, A. guatemalensis is actually *A. colombianus.* See Cact. and Succ. Journ. XV:86.

Page 96. Change the name H. fimbriatus to *H. Nashii* wherever mentioned. See Cact. and Succ Journ. XV:3.

Page 102. Under Recent New Species, Facheiroa Blossfeldiora should be *Facheiroa Blossfeldiorum.*

Page 103. Under Borzicactus add: *Loxanthocereus* Backeberg 1938, as a synonym.

Page 113. Second column, line 12, S. nyctacaulis should be *S. nycticalus.*

Page 119. Second column, line 10, Lehm. should be Lahmann.

Page 124. Second and fourth lines, R. miniscula and R. pseudominiscula should be *R. minuscula* and *R. pseudominuscula.*

Page 125. R. Schmiedickeana should be *R. Schmiedcheniana.*

Page 128. Line 11, var. setose should be var. *setosa.*

Page 130. Genus 7 should be *Genus 6.*

Page 134. Under Ariocarpus, second column, line 2, A. scapharostrus should be *A. scaphorostrus.*

Page 136. Obregonia Denegrii should be Obregonia *Denegri.*

Page 143. N. atrispina should be *N. atrispinosa.*

Page 145. Change caption of Fig. 98 to read Hamatocactus *hamatacanthus* and change in caption and text var. Davisii to read var. *gracilispinus* Eng.

Page 154. Var. Mirbelli should be var. *Mirbelii,* var. *quadrocostatus* should be var. *quadricostata.*

Page 170. Echinomastus ungispinus should be *E. unguispinus*

Page 178. Last line on page, nomina conservanda should be *nomen conservandum.*

Page 181. M. Olivae should be *M. Oliviae,* M. Scheidiana should be *M. Schiedeana,* M. estanzuilensis should be *M. estanzuelensis,* M. Herrarai should be *M. Herrarae,* M. Vierecki should be *M. Viereckii.*

Page 182. M. Bodereriana should be *M. Boedekeriana,* M. La Pacina should be *M. LaPacena.*

Page 184. M. yucatensis should be *M. yucatanensis,* Var. Drogeana should be var. *Droegeana.*

Page 187. M. Hamilton Hoytae should be *M. Hamilton Hoytea. M. melospina* should be *M. melispina.*

Page 192. Under Chiapasia note that flowers are *rose-pink,* not white as stated.

Page 206. Line 31, Knuth should *Kunth*—Dr. Karl S. Kunth.

Page 207. Third line of heading, add brackets so that statement reads: Subdivisions of the family lower than tribes, (*sub-tribes, sections and subgenera*) are in Roman capitals.

Page 219. Morawitzia should be *Morawetzia.*

August 1. Cactus in greenhouse temperature 112° with doors and ventilators open—couldn't sweat under a burning sun—93° in shade and several days of it ahead according to weather man (2° "cooler" than record of August, 1917). Astrophytums through blooming until late September if sunshine is plentiful. *Hylocereus undatus* bloom (tried to hybridize with *Epiphyllum cartagense* July 24) dropped off the same as *Epiphyllum cartagense* bloom did when *Hylocereus* was used. Hybrid blooms usually larger. Wouldn't this cross suggest possibilities?

August 3. Hottest! this date since 1890 (97°). Plants luxuriating in the harlequin light of the grape arbor—Epiphyllums, Rhipsalis, Aporocacti, Schlumbergeras and Zygocactus. Wish I could think up a light ladder to hold my Selenicerei and Hylocerei so I could set them out under the arbor. They are 12 feet high with multiple branches, etc., would be a feat. I'm not a Goliath, so they bake during the summer in my greenhouse. Pots in shade—heads in sunshine; perhaps that's why they do bloom so profusely. So far I've found no one in these parts that I know about has as many of them or gets theirs to bloom as I do. No, that pat on the back didn't knock me over.

August 6. Euphorbia obesa, my bachelor because of the price of a spouse, full of staminate flowers. Most of my Euphorbias seem to be dioecious and, of course, I only have one each of my rarer types. The exceptions to this dioecious family are *E. bubalina* and *E. fournerii.* These both bear viable seeds and are easily raised "to maturity." *Synedium grantii* in 6-inch pot of rich soil has grown six inches or more on each of its four branches; lush green, ornamental. Enjoys part shade and plenty of water. Looked at fig. 1088, pg. 957, Vol. II, of the "Succulent Euphorbieae" by White, Dyer and Sloane. Beautiful! Plenty of cuttings would result to keep it in my 9x15 greenhouse. I like Monadeniums but *M. lugardae* is my sole possession so far of this species (Vol. II, fig. 1073-1076 of above book). Grows fast. Grows best for me double potted. Keep moist while it has leaves. Reduce moisture in winter. Likes rich well-drained soil.

Aug. 12. At John and Theresa Bock's, Sharon, Pennsylvania, where girls are to vacation. Plants setting on ground with pots close enough to conserve moisture. Uses old dish pan filled with water. Sets plants in this until moisture appears on surface. Good combination for plants—root moisture with ground to absorb excess. Euphorbias are healthy green with plenty of strong growth. Keeps his plants on shelves in various windows all winter. Greenhouse still a dream. Has glassed in his front porch but feels cost would be prohibitive to heat same. Collecting Ceropegias. *C. dichotoma,* a white-green bunch-of-stocks is a real novelty.

Aug. 14. Record heat for all time since 12th. Tried to self-fertilize *Hylocereus undatus* Aug. 8, but bloom fell off today. Not able to hybridize or self-fertilize so far. Deficiency of rainfall. Lack of water doesn't hinder *Opuntias compressa, fragilis, polyacantha* and *rhodantha* from growing. Seedlings blooming for first time this year show characteristics of various shades of yellow from Minnesota, Southern Indiana, Tennessee, and northern Ohio. Clear lemon yellow is my choice so far. No rusty red shows at all. Seedlings in wet soggy ground until May. Grew and look as well as their parents in raised bed.

Aug. 18. Left Cleveland at 1:00 a. m. for Spencerport, New York. Always an enjoyable trip by Greyhound Bus. Friendly service men and chatty civilians. Stretched our legs at Erie at 3:20 a. m. Then to Buffalo. Took bus to St. Catherine's, Ontario. Old World charm with provincial adaptations. Saw several Epiphyllums in tubs on porches and tree stumps. None in bloom. Looked like "Deutsche Kaiserin" and *Ackermannii* but could have been anyone of the other common varieties. Unable to locate collectors for column reference. Located Amos, Quebec, on filling station map of Canada where attorney Laval Goulet lives. Need a longer time to do the circuit from Buffalo to Detroit, etc., through Canada if I were to visit my Canadian friends.

Aug. 21. At Eugene Zeigler's, Spencerport, New York, *Cereus alacriportanus* (B. & R., Vol. II, pg. 6 and 7, Plate II) budded. Consistent bloomer for him. About 6 feet tall. Gene has it labelled *paraguayensis* by which name it is usually sent out. Got 3-inch cuttings. Grows rapidly. Shivered in "early fall cool spell." Closed doors, welcomed 37° in Towanda, Pennsylvania. Frosted buckwheat. Hoped my son Rufus had closed doors and ventilators on my greenhouse (Gene's is all automatic but I'm not a mechanical genius as he is).

Aug. 23. Home again. Put cuttings of *Coryphantha clava, Mammillarias habniana* and *slevinii, Monvillea cavendishii, Cereus alacriportanus, Haworthia radula,* and *Euphorbia abysinica* and *pugniformis* in sand box. Potted up *Agyroderma testiculare* and *Harrisia guelichii* (rooted plants). Rufus had taken good care of my plants ,like a true cactophile. It's a source of family pride—succulents in general.

Aug. 27. At Bock's to bring home Nancy and Calista from their vacation. John and I stopped at Merkel's greenhouse on the Ohio side of Sharon. Had hundreds of healthy succulents and cacti in 3-inch pots in display room. Kept many fine specimen plants as cutting stock. Saw *Haworthia setata, bolusii* and the broad banded *fasciata* which is just reaching our mid-western dealers. If you haven't an *Aloe plicatilis* get one (and one for me, too). I haven't been able to get one so far. Looked with more than passing interest at the picture of J. Cecil Johnston's, pg. 61, May, 1945, Journal. Imagined the envy of other collectors if they saw it in my Aloe collection. Another 5-year plan perhaps. It's a disease, this cactiphobia.

Aug. 31. Put Zygocacti and Schlumbergeras in "my reminder-not-to-water-so-often category." Hard to stop that regular soaking when the plants look so lush and vigorous. Then to see them begin shrivelling.

NOT A PLANT DEALER

Please do not send your orders for plants to your Editor. I can refer you only to the dealers listed in the JOURNAL.

NEXT ISSUE

"Night Blooming Cereus" by Ladislaus Cutak will be reprinted in the September JOURNAL. This is one of the most interesting and valuable articles that has been published.

JOURNAL ADVERTISING: A two line ad in the JOURNAL brought Mr. Kilian from East Lansing, Michigan, to Gates Famous Cactus Gardens in Corona, California.

SPINE CHATS

LADISLAUS CUTAK

Ever since the first SPINE CHATS made their appearance 30 months ago it became apparent that new correspondents would be added to my already long list of pen pals. The volume of mail has now reached such proportions that I find it extremely difficult to answer your letters as promptly as you would like me to. Remember, too, that other interests also occupy and demand my time and having no secretary I find that several weeks may often elapse before I can get around to each piece of mail. Now I'm not trying to make excuses nor am I making an attempt to discourage new correspondents from writing, but only begging your indulgence to be patient with me if no answers are forthcoming immediately. I welcome all your letters, criticisms and problems; I really find enjoyment when I can be of service to you in any way. Keep on writing, keep on presenting your problems, keep on seeking advice, for that is the only way both of us can profit and enjoy our hobby. All your letters will be answered as time permits, but please be PATIENT! Thank you!

* * *

Although two years have already elapsed since Howard Scott Gentry's book, RIO MAYO PLANTS, was first published by the Carnegie Institution of Washington it is doubtful whether many of our readers are acquainted with this fine comprehensive botanical study of a particular region in Mexico where many interesting subtropical and desert type plants exist. The author spent approximately 27 months in exploration over a period of six years, collecting some 3200 numbers, representing 1276 species and varieties, of which 90 have already been detected as new. The enthusiastic collector enriched the world of succulents by discovering seven new additions, including five Agaves, one Cissus and one Cactus, all described for the first time in this work. A number of Mammillarias were also collected, among them several new species and intergrading varieties, but these were entrusted to other specialists who published them as new in other periodicals, particularly in our own CACTUS JOURNAL. The new *Agave bovicornuta* is said to be quickly recognized by its large size and bright green leaves while its marginal spines often resemble a cowhorn in shape from whence the specific name is derived. *A. colorata* is a very distinct species characterized by reddish crossbands on its leaves. *A. mayoensis* is an unarmed, medium-sized plant whose raw leaf pulp is used by the natives in washing their clothes by rubbing handfuls over the fabric as they do soap. *A. Shrevei* is a rather small mescal plant distinguished by its grayish, few-leaved and depressed rosette. *A. wocomahi* is the largest of the indigenous Rio Mayo Agaves and not very abundant. The succulent grape vine, *Cissus mayoensis*, possesses digitate leaves which drop off readily during dry spells. *Wilcoxia Mariana* obviously is a very rare plant of scandent habit and were it not in flower probably would have gone undetected at the time of his visit. The flowers are rather large and showy and really betrayed the plant's presence beside a densely branched tree.

* * *

Mr. and Mrs. Homer G. Rush of Los Angeles, California, are two happy individuals who take their hobby quite seriously. When this couple first came to California in 1927 they naturally did quite a bit of sightseeing before settling down to stay. The local deserts with their strange inhabitants intrigued them very much and it was there that they made acquaintance with the odd cacti. A small cactus garden was started with collected and purchased plants and was enjoyed for several years. During that time Homer Rush heard about Harry Johnson who ran a nursery devoted exclusively to cacti and succulents. A desire to visit this establishment was fulfilled shortly after and it was there that the Rushes met a young man who presented them with two free tickets to a local Cactus Show which was being held near their home. At the show both of the Rushes joined the S. W. Cactus Growers society. All this happened about nine years ago and the interest stirred up at that time is still on the increase and no doubt will continue to grow. Although interested in all types of succulents the Rushes somehow find a preference for Sedums, Echeverias, Rhipsalis, Aeoniums and Sempervivums and around these genera they have built their collections. Their collection, while it seems large to them, is nowhere as complete as they would like to have it, but then many plants they desire are either not available or they haven't been able to make the right contact to get them. Mr. and Mrs. Rush still consider themselves amateurs, which is no sin at all, for amateurs often have a keener contact with plants than some so-called 'specialists.' Homer Rush, who at present is the President of the Los Angeles Cactus and Succulent Society, confides that Bill Marshall, Dr. Robert Clausen and Jack Whitehead have helped and encouraged him very much in the pursuit of his favorite hobby. In recent issues of the JOURNAL Mr. Rush broke into print with two fine articles. It is our sincere wish that he will favor us with many more.

* * *

NIUE ISLAND, which lies in the south Pacific Ocean about 350 miles southeast of well known Samoa, is only 11 miles wide and 13 miles long or approximately 64,028 acres in extent, but about 459 species and varieties of plant life have been collected on the isle. The vegetation consists of native plants, economic plants of aboriginal introduction, and plants brought in since the discovery of the island by Europeans. Of this number, about half are indigenous while the other half are either introduced or adventive. The cosmopolitan chandelier plant, *Bryophyllum pinnatum*, was introduced many years ago but is now well established and abundant, especially on coral rocks near the sea. This popular member of the *Crassulaceae*, whose leaves often are sold in cellophane envelopes in our dime stores for luck charms, has become naturalized in many parts of the subtropical world. I once found it beside a sluggish creek on the outskirts of Cordoba, Mexico, where it grew under the spreading fronds of the beautiful tree fern, *Cibotium Schiedei*, of all the unusual places. The famous crown of thorns, *Euphorbia splendens*, is another introduced ornamental on Niue where it is often cultivated as a hedge. The third succulent to be encountered on the South Sea isle is *Epiphyllum oxypetalum*, called "goose-neck cactus" by the natives, but it is cultivated as a dooryard plant only.

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BOOK NOTES

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